

WHAT IS CLAIMED IS:

1. A scannable form comprising:
 - a. an elongate rectangular shape with first and second substantially straight longitudinal edges;
 - b. at least two response columns parallel to the first longitudinal edge;
 - c. a control mark column, parallel to the first longitudinal edge and parallel to the response column but spaced therefrom, the control mark column containing, in a direction parallel to the first longitudinal edge:
 - (1) a first set of response control marks having a first length;
 - (2) a second set of response control marks having the first length;
 - (3) a start-of-form mark having a second length different from the first length;
 and
 - (4) an end-of-form mark having a third length different from the first length and the second length;
 the first set of response control marks being column aligned with the start-of-form mark and before the second set of response control marks, the start-of-form mark being column aligned before the second set of response control marks, and the second set of response control marks being column aligned before the end-of-form mark;
 - d. a response row corresponding to each response control mark, each response row being row aligned with the corresponding response control mark perpendicular to the first longitudinal edge, each response row containing at least two response receiving spaces, and each response receiving space being aligned in one of said response columns, the first set of response control marks being associated with response rows that have numeric value response receiving spaces; and
 - e. a bar code in at least one of a first location and a second location, the first location being a first pre-determined distance below the end-of-form mark and a second pre-determined distance above a bottom edge of the form, the second location being a third pre-determined distance from at least one response row and a fourth pre-determined distance

from one of the first and second longitudinal edges, the bar code being sufficiently spaced away from the response rows to avoid false detection of marks in the response rows.

2. The form of claim 1, wherein user written marks in the response receiving spaces are scannable by a first device, and the bar code is scannable by a second device.

3. The form of claim 1, further comprising a back side with a plurality of response control marks, response rows parallel to the response control marks, and an end-of-form mark, wherein said first location and second location of the bar code are on the back side of the form.

4. The form of claim 1, wherein user written marks in the response receiving spaces are scannable by an optical mark recognition (OMR) scanner.

5. The form of claim 1, further comprising at least one optical character recognition (OCR) space designated for a user handwritten character, the optical character recognition space being located in at least one of the first and second locations.

6. The form of claim 5, wherein the at least one optical character recognition (OCR) space is located on a back side of the form.

7. The form of claim 5 having a plurality of optical character recognition (OCR) spaces for a user to handwrite at least one of a user name, a user identification, a user social security number, a date, a class section, and an administrator name.

8. The form of claim 1, further comprising at least one intelligence character recognition (ICR) space designated for a machine written character, the ICR space being located in at least one of the first and second locations.

9. The form of claim 1, wherein each response row associated with the response control marks of the second set of response control marks contains a plurality of response

receiving spaces designated to correspond to selectable answers of a multiple choice question.

10. The form of claim 1, wherein the first, second and third lengths are measured in a direction parallel to the first longitudinal edge, and the start-of-form mark is longer than the end-of-form mark, and the end-of-form mark is longer than the response control marks.

11. The form of claim 1, wherein each numeric value response receiving space corresponds to a different numeric value.

12. The form of claim 11, wherein the numeric value for a numeric value block is designated to correspond to a sum of the numeric values of all selected response receiving spaces within the numeric value block.

13. The form of claim 12, further including a space for designating a form as a key form such that each numeric value of each numeric value block on the key form indicates that associated numeric value blocks on subsequent forms should contain a numeric value and indicates a maximum value for the associated numeric value.

14. The form of claim 13, further including a space for designating a mathematical operation to be performed between the numeric value of a numeric value block and the sum of the response receiving spaces.

15. The form of claim 14, wherein the designated mathematical operation is addition.

16. The form of claim 1, wherein each response row associated with the response control marks of the second set of response control marks contains one response receiving space in a corresponding response column, at least one group of successive response rows being allocated to correspond to selectable responses, and further comprising an end-of-response column parallel to the first longitudinal edge but spaced from both the control mark

column and the response column and containing marks row aligned with the last response space associated with each group of response rows.

17. The form of claim 1, further comprising a set of mode indicating indicia row aligned with the start-of-form mark and column aligned with at least one of the response columns.

18. A form scanning system including:

a. a scannable form having:

(1) an elongate rectangular shape with first and second generally straight longitudinal edges;

(2) at least two response columns parallel to the first longitudinal edge;

(3) a control mark column, parallel to the first longitudinal edge and parallel to the response column but spaced therefrom, the control mark column containing, in a direction parallel to the first longitudinal edge:

(i) a first set of response control marks;

(ii) a second set of response control marks;

(iii) a start-of-form mark; and

(iv) an end-of-form mark;

the first set of response control marks being column aligned with the start-of-form mark and before the second set of response control marks, the start-of-form mark being column aligned before the second set of response control marks, and the second set of response control marks being column aligned before the end-of-form mark;

(4) a response row corresponding to each response control mark, each response row being row aligned with the corresponding response control mark perpendicular to the first longitudinal edge, each response row containing at least two response receiving spaces, and each response receiving space being aligned in one of response columns, the first set of response control marks being associated with response rows that have numeric value response receiving spaces; and

(5) a bar code in at least one of a first location and a second location, the first location being a first pre-determined distance below the end-of-form mark and a second pre-determined distance above a bottom edge of the form, the second location being a third pre-determined distance from at least one response row and a fourth pre-determined distance from one of the first and second longitudinal edges, the bar code being sufficiently spaced away from the response rows to avoid false detection of marks in the response rows; and

b. a scanning apparatus operable to detect response control marks on the scannable form and optically recognize marks in the response receiving spaces. .

19. The form scanning system of claim 18, wherein the form further comprises a back side with a plurality of response control marks, response rows parallel to the response control marks, and an end-of-form mark, the scanning apparatus being operable to recognize marks in the response receiving spaces on both sides of the scannable form.

20. The form scanning system of claim 19, wherein the bar code is on the back side of the form at a pre-determined distance from at least one response row.

21. The form scanning system of claim 18, wherein at least one side of the form further comprises at least one optical character recognition (OCR) space designated for a user handwritten character, the optical character recognition space being located in at least one of the first and second locations, the scanning apparatus being operable to recognize the user handwritten character in the OCR space.

22. The form scanning system of claim 21, wherein at least one side of the form further comprises a plurality of optical character recognition (OCR) spaces for a user to handwrite at least one of a user name, a user identification, a user social security number, a date, a class section, and an administrator name.

23. The form scanning system of claim 18, wherein the form further comprises at least one intelligence character recognition (ICR) space designated for a machine written character, the ICR space being located in at least one of the first and second locations.

24. The form scanning system of claim 18, wherein the scanning apparatus interprets a mark in the numeric value response receiving spaces as a numeric value.

25. The form scanning system of claim 18, wherein the scanning apparatus is programmed by a key sheet to interpret the response rows associated with the first set of response control marks as a numeric value.

26. The form scanning system of claim 18, wherein the scanning apparatus is programmed to tally responses in the response rows associated with the second set of response control marks, and to mathematically combine the numeric value with the tally results.

27. The form scanning system of claim 18, wherein the scanning apparatus is programmed to mathematically combine the numeric value with selected responses in the response rows associated with the second set of response control marks.

28. A method of making a scannable form, the method comprising:
printing on a form having an elongate rectangular shape with first and second substantially straight longitudinal edges:

- a. at least two response columns parallel to the first longitudinal edge;
- b. a control mark column, parallel to the first longitudinal edge and parallel to the response column but spaced therefrom, the control mark column containing, in a direction parallel to the first longitudinal edge:
 - (1) a first set of response control marks having a first length;
 - (2) a second set of response control marks having the first length;
 - (3) a start-of-form mark having a second length different from the first length; and
 - (4) an end-of-form mark having a third length different from the first length and the second length, the first set of response control marks being column aligned with the start-of-form mark and before the second set of response control marks, the start-of-form mark being

column aligned before the second set of response control marks, and the second set of response control marks being column aligned before the end-of-form mark,

c. a response row corresponding to each response control mark, each response row being row aligned with the corresponding response control mark perpendicular to the first longitudinal edge, each response row containing at least two response receiving spaces, and each response receiving space being aligned in one of said response columns, the first set of response control marks being associated with response rows that have numeric value response receiving spaces; and

d. a bar code in at least one of a first location and a second location, the first location being a first pre-determined distance below the end-of-form mark and a second pre-determined distance above a bottom edge of the form, the second location being a third pre-determined distance from at least one response row and a fourth pre-determined distance from one of the first and second longitudinal edges, the bar code being sufficiently spaced away from the response rows to avoid false detection of marks in the response rows.